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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/467,611	12/20/1999	GEORGE J. MIAO	INTL-0324-US	2610

7590 05/08/2003

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EXAMINER

NGUYEN, DUNG X

ART UNIT	PAPER NUMBER
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2631

3

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/467,611

Applicant(s)

MIAO ET AL.

Examiner

Dung X Nguyen

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 - 15 and 26 - 30 is/are allowed.
- 6) ☒ Claim(s) 16 - 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 16 – 25 are rejected** under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites the limitation "said first stage" in line 3 and "said second stage" in line

6. There are insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claim 16 is rejected** under 35 U.S.C. 102(e) as being anticipated by Lehman et al. (US patent # 6,282,184 B1).

Regarding claim 16, Lehman et al. discloses (figure 2):

- Providing a pair (30 and 9) of filtering stages (also see column 6, lines 33 – 47);
- Selectively programmable a 1st stage (30) to filter an CDMA signal or GSM signal (figure 3 and column 7, lines 31- 65);
- Using a second stage (9) to filter the GSM signal (figure 8 and column 16, line 36 to column 17, line 30).

Allowable Subject Matter

4. **Claims 1 – 15 and 26 – 30 are allowed.** The following is a statement of reasons for the indication of allowable subject matter:

Regarding to claim 1, the prior art of record fails to show or render obvious of a cellular transceiver, comprising:

A first digital decimation filter with N bands; and

A second digital decimation filter to reject N – 1 bands coupled to the first digital decimation filter for implementing a Global System for Mobile communication mode.

Regarding to claim 26, the prior art of record fails to show or render obvious of an article comprising a medium for storing instructions that cause a processor-based system to:

Selectively set the number of taps in a first filtering stage depending on whether a Wideband Code Division Multiple Access signal or a Global System for Mobile communication signal has been detected; and

Select an output from either a first of two filtering stages or a second of two filtering stages depending on whether a Wideband Code Division Multiple Access or a Global System for Mobile communication signal is received.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US PATENT DOCUMENTS:

Soleymani (U.S. Patent No. 6,493,358 B1) discloses a method and its corresponding apparatus for de-multiplexing a frequency division multiplexed input signal and polyphase digital filter network therefor.

Lipka (U.S. Patent No. 6,459,743 B1) discloses a digital reception with radio frequency sampling.

Patel et al. (U.S. Patent No. 6,480,528 B1) discloses an automatic gain control for improved decoding of multi-carrier signal.

Hung et al. (U.S. Patent No. 6,370,361B1) discloses a transceiver with a receive, transmit fast switch function.

Boesch et al. (U.S. Patent No. 6,125,268 B1) discloses a tuning bandwidth minimization for low voltage dual band receiver.

Dent (U.S. Patent No. 6,205,334 B1) discloses an accelerated scanning of cellular channels by cellular radiotelephones.

Camp, Jr. et al. (U.S. Patent No. 6,097,974) discloses a combined GPS and wide bandwidth radiotelephone terminal and methods.

Masaki (U.S. Patent No. 5,574,995) discloses a radio receiver with a high speed and accurate search operation and a method thereof.

OTHER PUBLICATIONS:

Srinivasan et al., "Design and Analysis of Receiver Filters for Multiple Chip-Rate DS-CDMA Systems", IEEE Journal on Selected Areas in Communications, Vol. 17, No. 12, December 1999, pp. 2096-2109.

Adachi et al., "Wideband Multi-Rate DS-CDMA for Next Generation Mobile Communication Systems", IEEE 1997 Wireless Communications Conference, May 1997, pp. 57-62.

Sampaio-Neto et al., "Carrier Recovery Performance in PSK Systems Using Transmission Pulses with a Square Root Raised Cosine Spectrum", Telecommunications Symposium 1990. ITS '90 Symposium Record., SBT/IEEE International, September 1990, pp. 529-534.

Fred Harris, "On the Design of Pre-Equalized Square-Root Raised Cosine Matched Filters for DSP Based Digital Receivers", Signals, Systems and Computers 1993. 1993

Art Unit: 2631

Conference Record of the Twenty-Seventh Asilomar Conference, November 1993, vol. 2, pp. 1291-1295.

Contact Information

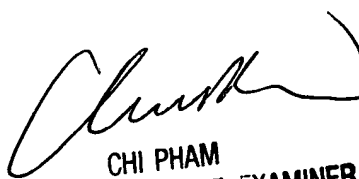
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (703) 305-4892. The examiner can normally be reached on Monday through Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chi Pham can be reached on (703) 305-4378. The fax number for this group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

DXN

April 23, 2003


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 300
5/26/03